


Introduction

Choosing the appropriate seed to reforest a particular site is important for many reasons: producing a long-lived, healthy stand; limiting damage from climate or pests; promoting rapid production of commodities; and maintaining locally adapted gene pools. This document will provide information to land managers responsible for selecting forest tree seed for reforestation. The risk of moving seed from a source environment to a planting environment will be kept within acceptable levels by establishing seed zones and elevation bands within which seed can be transferred. These recommendations will supersede those of the Tree Seed Zone Map that was published for the State of Washington in 1966 (see next page). They apply to seed collected from natural populations of native forest trees unless otherwise noted.

New tree seed zones or seed transfer guidelines are needed because the ones in current use are out of date. The old Tree Seed Zone Map was based only on climatic, vegetative, and topographic information. Now genetics information, which has accumulated over the past 30 years, needs to be incorporated into the recommendations. For example, the old tree seed zones were the same for all species, but it is now known that species differ tremendously in how far they can be moved safely. This guide summarizes published seed zone literature, seed transfer rules, genetics, and geographic variation for tree species used in reforestation, wildlife, and riparian planting. Specific guidelines are given for each species.

These guidelines are meant to improve silvicultural prescriptions, not to replace them. Not all sites within a seed zone will be appropriate for a particular tree species. You must rely on your knowledge of species characteristics to determine which species is most appropriate for the site you plan to reforest. To determine the best source of seed for the area you want to plant, locate the page reference for that species in the table of contents and read the specific recommendation. Then refer to the species map for seed zones and elevations bands. Elevation bands are not mapped, but are considered in the seed transfer guidelines. Also, seed zones are only delineated for areas where the species naturally occurs.

Each of these guidelines are for a particular forest tree species and should not be used for other plants. However, the 1966 Tree Seed Zones encompass areas where environmental variation is fairly uniform and could serve as guidelines for other species where no seed zones have been established.